ABSTRACT

A system for moving a filter or a retainer into or out of a fluid pathway without halting the movement of the fluid in the pathway. When acting as a filtering device, the system includes a filter frame and a drive mechanism for slidingly moving the filter frame on stationary rails that remain in the duct through which the fluid is transferred. When a retainer device, the system includes a retainer and a drive mechanism for slidingly moving retainer on stationary rails that remain in the chamber through which a fluid under treatment passes. The system includes isolation means permitting the filter frame or retainer to pass into or out of the duct or chamber without exhausting the fluid within the duct or chamber. The drive mechanism may be a guillotine damper gate drive, a spindled drive, a hydraulic actuator or other drive means. The filter or the retainer may include a plurality of bays that are rigidly, hingedly, or detachably connected together. The system may be used in the fluid pathways of power generation systems, including Selective Catalyst Reduction (SCR) reactors, but is not limited thereto.